

Claims

We claim:

1. A method for performing IP telephony, comprising:
 - 5 receiving a Call Setup request, wherein the Call Setup request comprises a source IP address and a destination telephone number;
 - selecting a first Media Gateway based on the source IP address;
 - selecting a second Media Gateway based on the destination telephone number;
 - comparing a public IP address of the first Media Gateway to a public IP address
 - 10 of the second Media Gateway;
 - if the public IP address of the first Media Gateway is the same as the public IP address of the second Media Gateway, selecting a private IP address of the first Media Gateway and a private IP address of the second Media Gateway for Call Setup; and
 - if the public IP address of the first Media Gateway is not the same as the public IP
 - 15 address of the second Media Gateway, selecting the public IP address of the first Media Gateway and the public IP address of the second Media Gateway for Call Setup.
2. The method of claim 1, further comprising:
 - 20 sending the selected IP address of the first Media Gateway to the second Media Gateway; and
 - sending the selected IP address of the second Media Gateway to the first Media Gateway.
3. The method of claim 2, further comprising:
 - 25 the first Media Gateway sending data to the second Media Gateway using the selected IP address of the second Media Gateway; and
 - the second Media Gateway sending data to the first Media Gateway using the selected IP address of the first Media Gateway.

4. The method of claim 1, further comprising:

registering the first Media Gateway prior to said receiving, wherein said registering the first Media Gateway comprises receiving and storing the public IP address of the first Media Gateway; and

5 registering the second Media Gateway prior to said receiving, wherein said registering the second Media Gateway comprises receiving and storing the public IP address of the second Media Gateway.

10 5. The method of claim 4, wherein said registering the first Media Gateway further comprises receiving and storing a private IP address of the first Media Gateway.

15 6. The method of claim 4, wherein said registering the second Media Gateway further comprises receiving and storing a private IP address of the second Media Gateway.

20 7. The method of claim 1, wherein the first Media Gateway and the second Media Gateway each comprise one of an IP telephone or a Trunking Gateway, wherein the Trunking Gateway comprises an interface to the Public Switched Telephone Network (PSTN).

8. A system for performing IP telephony, comprising:

a network;

a first Media Gateway;

25 a second Media Gateway, wherein the second Media Gateway is operable to couple to the first Media Gateway through the network; and

a Media Gateway Controller, wherein the Media Gateway Controller is operable to couple to the first Media Gateway and the second Media Gateway through the network;

wherein the first Media Gateway is operable to send a Call Setup request to the Media Gateway Controller, wherein the Call Setup request comprises a source IP address and a destination telephone number;

wherein the Media Gateway Controller is operable to:

5 receive a Call Setup request;
 select a first Media Gateway based on the source IP address;
 select a second Media Gateway based on the destination telephone
number;

 compare a public IP address of the first Media Gateway to a public IP
10 address of the second Media Gateway;

 if the public IP address of the first Media Gateway is the same as the
public IP address of the second Media Gateway, select a private IP address of the first
Media Gateway and a private IP address of the second Media Gateway for Call Setup;
and

15 if the public IP address of the first Media Gateway is not the same as the
public IP address of the second Media Gateway, select the public IP address of the first
Media Gateway and the public IP address of the second Media Gateway for Call Setup.

9. The system of claim 8, wherein the Media Gateway Controller is further
20 operable to:

 send the selected IP address of the first Media Gateway to the second Media
Gateway; and

 send the selected IP address of the second Media Gateway to the first Media
Gateway.

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10. The system of claim 9,

 wherein the first Media Gateway is operable to send data to the second Media
Gateway using the selected IP address of the second Media Gateway; and

wherein the second Media Gateway is operable to send data to the first Media Gateway using the selected IP address of the first Media Gateway.

11. The system of claim 8, wherein the Media Gateway Controller is further
5 operable to:

register the first Media Gateway prior to said receiving, wherein, in registering the first Media Gateway the Media Gateway Controller is operable to receive and store the public IP address of the first Media Gateway; and

10 register the second Media Gateway prior to said receiving, wherein, in registering the second Media Gateway the Media Gateway Controller is operable to receive and store the public IP address of the second Media Gateway.

12. The system of claim 11, wherein, in registering the first Media Gateway the Media Gateway Controller is further operable to receive and store a private IP address
15 of the first Media Gateway.

13. The system of claim 11, wherein, in registering the second Media Gateway the Media Gateway Controller is further operable to receive and store a private IP address of the second Media Gateway.
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14. The system of claim 8, wherein the first Media Gateway and the second Media Gateway each comprise one of an IP telephone or a Trunking Gateway, wherein the Trunking Gateway comprises an interface to the Public Switched Telephone Network (PSTN).
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15. A memory medium, wherein the memory medium stores program instructions which are executable to perform:

receiving a Call Setup request, wherein the Call Setup request comprises a source IP address and a destination telephone number;

selecting a first Media Gateway based on the source IP address;
selecting a second Media Gateway based on the destination telephone number;
comparing a public IP address of the first Media Gateway to a public IP address
of the second Media Gateway;

5 if the public IP address of the first Media Gateway is the same as the public IP
address of the second Media Gateway, selecting a private IP address of the first Media
Gateway and a private IP address of the second Media Gateway for Call Setup; and

 if the public IP address of the first Media Gateway is not the same as the public IP
address of the second Media Gateway, selecting the public IP address of the first Media
10 Gateway and the public IP address of the second Media Gateway for Call Setup.

16. The memory medium of claim 15, wherein the program instructions are
further executable to perform:

 sending the selected IP address of the first Media Gateway to the second Media
15 Gateway; and

 sending the selected IP address of the second Media Gateway to the first Media
Gateway.

17. The memory medium of claim 16,
20 wherein the selected IP address of the second Media Gateway is useable by the
first Media Gateway to send data to the second Media Gateway; and

 wherein the selected IP address of the first Media Gateway is useable by the
second Media Gateway to send data to the first Media Gateway.

25 18. The memory medium of claim 15, wherein the program instructions are
further executable to perform:

 registering the first Media Gateway prior to said receiving, wherein said
registering the first Media Gateway comprises receiving and storing the public IP address
of the first Media Gateway; and

registering the second Media Gateway prior to said receiving, wherein said registering the second Media Gateway comprises receiving and storing the public IP address of the second Media Gateway.

5 19. The memory medium of claim 18, wherein said registering the first Media Gateway further comprises receiving and storing a private IP address of the first Media Gateway.

10 20. The memory medium of claim 18, wherein said registering the second Media Gateway further comprises receiving and storing a private IP address of the second Media Gateway.

15 21. The memory medium of claim 15, wherein the first Media Gateway and the second Media Gateway each comprise one of an IP telephone or a Trunking Gateway, wherein the Trunking Gateway comprises an interface to the Public Switched Telephone Network (PSTN).